

METHOD AND APPARATUS FOR Z-AXIS
TRACKING AND COLLIMATION

ABSTRACT OF THE DISCLOSURE

A method for adjusting a focal spot position during a scan of a computed tomography (CT) imaging system having a z-axis. The CT imaging system includes a detector array having a plurality of detector elements and an x-ray tube configured to direct an x-ray beam towards the detector through an object to be imaged. The method includes turning on the x-ray tube and reading a z-ratio from the detector. A shift in a position of a focal spot of the x-ray tube is then determined utilizing the read z-ratio. The method further includes using a transfer function to determine a compensating electronic deflection value; and applying the electronic deflection value to the x-ray tube as at least one of a deflection voltage or a deflection current to track the focal spot in the z-axis direction.